

IN THE CLAIMS:

1. (Currently Amended) A method for re-using an array of storage devices, comprising:

using firstly an array of storage devices to conduct read/write operations under control of at least a first controller including providing metadata to each of said storage devices of said array;

ascertaining that a failure has occurred ~~which is different than a failure of one or more of said storage devices;~~

discontinuing use of at least two of said storage devices of said array related to conducting read/write operations based on the failure; and

using said array of storage devices after said discontinuing ~~while avoiding writing at least substantially all previously stored user data and/or parity to said at least two storage devices that was present before the failure,~~ wherein said using said array of storage devices after said discontinuing includes updating said metadata to remove an indication that none of said at least two storage devices are accessible and to indicate that said at least two storage devices are accessible, wherein said updating said metadata is performed in response to said ascertaining that a failure has occurred, and wherein said updating said metadata is performed without interrupting power to the array.

2. (Original) A method, as claimed in Claim 1, wherein:

the failure is a transient failure and is related to at least one of:

an array enclosure;

a back plane;

a cable;

said first controller;

an interface; and

software involved with operation of said first controller.

3. (Previously Presented) A method, as claimed in Claim 1, wherein:
said using said array of storage devices after said discontinuing includes making a determination related to being able to use said array of storage devices including said at least two thereof.

4. (Previously Presented) A method, as claimed in Claim 3, wherein:
said making said determination related to be able to use said array of storage devices including said at least two thereof includes checking whether one or more of said storage devices is off-line.

5. (Previously Presented) A method, as claimed in Claim 1, wherein:
said updating said metadata includes modifying metadata in a primary dead partition map on each of said storage devices, wherein each of said storage devices including said at least two storage devices is indicated as being valid.

6. (Previously Presented) A method, as claimed in Claim 1, wherein:
said using said array of storage devices after said discontinuing includes issuing a trust array command to said first controller that causes said updating said metadata including writing all zeros in a primary dead partition map.

7. (Previously Presented) A method, as claimed in Claim 6, wherein:
said using said array of storage devices after said discontinuing includes determining whether each of said storage devices of said array is accessible after said issuing of said trust array command.

8. (Previously Presented) A method, as claimed in Claim 7, wherein:
said using said array of storage devices after said discontinuing includes controlling re-use of said array when it is determined that no more than one of said storage devices of said array is off-line.

9. (Currently Amended) A method, as claimed in Claim 7, wherein further comprising:

allowing said user data and/or parity to be read by said first controller when more than one of said storage devices is off-line and reading said user data and/or parity from said storage devices of said array that are on-line.

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10. (Previously Presented) A method, as claimed in Claim 1, wherein:
said using said array of storage devices after said discontinuing includes controlling re-use of said array based on one of: a user determination and an automatic determination independently of the user.

11. (Previously Presented) A method, as claimed in Claim 10, wherein:
said using said array of storage devices after said discontinuing includes generating a command by a host and transmitting said command to said first controller.

12. (Original) A method, as claimed in Claim 11, wherein:
said command is initiated manually by the user of said array.

13. (Currently Amended) A method, as claimed in Claim 1, wherein further comprising:

~~said avoiding writing at least substantially all previously stored user data and/or parity includes avoiding~~ not restoring and/or reconstructing ~~at least substantially all said~~ user data and/or parity.

14. (Currently Amended) A system in which an array of storage devices are re-used after use of at least one storage device of the array is discontinued based on a fault, comprising:

an array of storage devices relative to which read and write data transfers are conducted;

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a controller communicating with said array of storage devices for conducting read/write operations; and

a host communicating with said controller that makes requests related to data to be stored and data to be obtained from said array of storage devices;

10 wherein said host is used in generating a trust array command related to updating metadata, including changing said metadata from indicating that said one or more storage devices is inaccessible to indicating that said one or more storage devices is accessible, on each of said storage devices of said array after a fault occurs and after use of said array was discontinued due to the fault, ~~which fault is different than a fault of one or more of~~
15 ~~said storage devices and in which writing at least substantially all previously stored user data and/or parity that was previously written to said array of storage devices is avoided,~~
but without restarting said array, and wherein said trust array command is generated in response to detection of said fault.

15. (Original) A system, as claimed in Claim 14, wherein:
said trust array command is generated in response to input from a user of the system.

16. (Original) A system, as claimed in Claim 14, wherein:
said trust array command is generated independently of any reconstruction and/or restoration of said array.

17. (Original) A system, as claimed in Claim 14, wherein:
said host controls discontinuing use of said array of storage devices based on the fault and subsequently said host receives an input that is used in generating said trust array command.

18. (Previously Presented) A system, as claimed in Claim 14, wherein:
said trust array command modifies a primary dead partition map to indicate that
all of said storage devices are valid.

19. (Original) A system, as claimed in Claim 14, wherein:
a determination is made by at least one of said controller and said host related to
whether one or more of said storage devices is off-line before said trust array command is
generated and a determination is made by at least one of said host and said controller
5 related to whether each of said storage devices of said array is accessible after said trust
array command is generated.

20. (Previously Presented) A system in which an array of storage devices are
re-used after use of at least one storage device of the array is discontinued based on a
fault, comprising:
an array of storage devices relative to which read and write data transfers are
5 conducted;
a controller communicating with said array of storage devices for conducting read/
write operations; and
a host communicating with said controller that makes requests related to data to
be stored and data to be obtained from said array of storage devices;
10 wherein said host is used in generating a trust array command related to updating
metadata on each of said storage devices of said array after a fault occurs and after use of
said array was discontinued due to the fault, said trust array command being generated in
response to input from a user of the system.